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Abstract

The present invention relates to a vinyl acetate based polymer latex composition obtained by emulsion polymerization of:

(a) polyvinyl alcohol,

10 (c) a monomer mixture comprising vinyl acetate, and (d) optionally one or more additional co-monomer(s),

in presence of (c) 0.0001-0.05 wt.% of a chain transfer agent, based on total monomer weight, said vinyl acetate based polymer latex composition having a weight average particle size ≥ 400 nm and a higher shear thinning factor than the vinyl acetate based polymer latex composition (a), (b) and (d) obtained in the absence of the chain transfer agent (c). According to one embodiment, emulsion polymerization is carried out in presence of 0.001 to 0.05 wt.% of a chain transfer agent selected from the group consisting of aldehydes and chain transfer agents having a similar chain transfer constant with regard to vinyl acetate as the monomer. According to another embodiment, emulsion polymerization is carried out 15 in presence of 0.0001 to 0.01 wt.% of a chain transfer agent selected from the group consisting of thiols, mercapto acids, and chain transfer agents having a similar chain transfer constant with regard to vinyl acetate as the monomer. The invention also relates to an adhesive comprising said vinyl acetate based polymer latex composition. Such adhesive is preferably used in paper and packaging applications or as a wood working adhesive or 20 25 wood glue.

The invention further relates to a process of manufacture of a vinyl acetate based polymer latex composition having a weight average particle size ≥ 400 nm, including emulsion polymerization of vinyl acetate in the presence of polyvinyl alcohol, optionally together with one or more additional co-monomer(s), wherein the emulsion polymerization 30 is carried out in the presence of 0.0001 wt.% to 0.05 wt.% chain transfer agent, based on total monomer weight.

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